**Rejection under 35 U.S.C. §102 and §103**

Claims 1-4 and 6-8 were rejected under 35 U.S.C. §102(b) as being anticipated by Hnat et al., 9th International Ash Use Symposium, pp. 74-1 to 74-13, (hereinafter "Hnat"). Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hnat, further in view of UK Patent Application No. 2176774A to Toussaint (hereinafter "Toussaint"). The Applicants traverse this rejection for the reasons set forth below.

Hnat discloses a method for making mineral wool from metal processing slag. During the fiberizing process, up to 50% of the material forms into "shot", which is described as small spheres less than 300 microns in diameter. This "shot" is removed in collection screens and discarded as waste.

Toussaint discloses the use of unrefined or refined glass to form vitreous beads.

Neither of these references teaches or suggests the formation of a composition comprising particles formed using coal slag or coal fly ash, where at least 50% of the particles are substantially spheroidal. Toussaint does not teach or suggest the use of coal slag or coal fly ash for forming particles.

Hnat teaches the formation of particles from metal processing slag while preparing mineral wool. These particles are discarded as waste. In the process of mineral wool formation, slag particles are fed into a device that draws fibers out of the slag particles. The "shot" is particles from which the fibers have not been drawn or only partially drawn. Many of the "shot" particles have tails or partially formed fibers extending from the particles. Other "shot" particles have fibers that have partially or fully fused to the surface of the particles. The majority of the particles are not substantially spheroidal. The non-spheroidal nature of the majority of the "shot" particles is a result of the manufacturing process for mineral wool.

In contrast, the Applicant has invented a process that permits the manufacture of the inventive compositions claimed in claims 1-8, 51, and 52, where, as recited, at least 50% of the particles of the composition are spheroidal. In some instances, as disclosed in Example 1 of the specification, at least about 90% of the particles are spheroidal. The spheroidal nature of the particles is particularly important in applications such as, for example, shot peening. A composition having a majority of non-spheroidal particles would typically not be acceptable for



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this and other applications. The "shot" generated by Hnat does not meet the limitations of the Applicant's claims. Moreover, Hnat does not teach or suggest a method for the manufacture of the Applicant's claimed composition.

Because none of the references teach or suggest the Applicant's claimed compositions, the Applicant submits that claims 1-8, 51, and 52 are patentable over the cited references. The Applicant respectfully requests that the rejection of these claims be withdrawn.

## Conclusion

In view of the amendments to the claims and the arguments presented herein, the Applicant respectfully submits that each of the presently pending claims (claims 1-8, 51, and 52) is in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicant's representative at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted,

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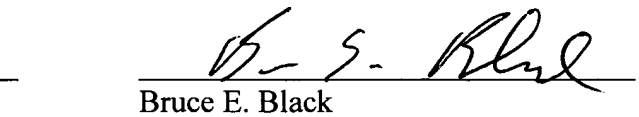
DATE: March 22, 2000



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